Special Issue

Metal-Organic Frameworks for Gas Adsorption

Message from the Guest Editor

Metal-organic frameworks (MOFs) represent an interesting class of hybrid inorganic-organic materials constructed from metal ions or clusters and organic linkers to form porous polymeric frameworks with interesting properties. MOFs have been tested as materials for different applications, including gas storage and separation, heterogeneous catalysis, drug delivery, energy storage and many others. However, gas adsorption has always been and still is the dominant field of application of these interesting and intensively studied materials. This Special Issue of Materials is focused on the preparation of novel or known MOF materials, their eventual post-synthetic modification and subsequent application in gas adsorption or gas separation. Manuscripts containing single or mixed adsorption of hydrogen, carbon dioxide, carbon monoxide, noble gases, nitrogen oxides, hydrocarbons, water and more are required. Moreover, subsequent calculations of adsorption capacities, isosteric heats of adsorption, gas separation by direct measurements, or by calculation are also requested.

Guest Editor

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. Materials provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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